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09/724,606	11/28/2000	Dexter A. Burleigh	06558/007002	7648

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EXAMINER

THAI, HANH B

ART UNIT	PAPER NUMBER
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2171

DATE MAILED: 11/04/2003

13

Please find below and/or attached an Office communication concerning this application or proceeding.

9

# Office Action Summary

Application No.

09/724,606

Applicant(s)

BURLEIGH ET AL.

Examiner

Hanh B Thai

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 01 January 1940.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 May 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

This is in response to the Request for Continued Examination dated September 15, 2003.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7 and 15-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cwenar (U. S. Patent no. 5,893,079) in view of Armitage (U. S. Patent no. 5,475,589).

1. Regarding claims 1 and 21-22, Cwenar discloses at (FIG. 4) an information management system, comprising:

- a data repository (101, Fig.4, Cwenar) adapted to store related data tied to a key parameter field (FIG. 6; col. 7, lines 21-27 and col. 13, lines 19-39, Cwenar), wherein the related data are portfolio; and
- at least one application server (100) adapted to provide a plurality of applications (column 6, line 39) to a plurality of users (126, 128, 130, 132, 134, 136, 138 and 140), the at least one application server (100) operatively coupled to the data repository (101), each of the applications adapted to generate at least some data having the key parameter field, the at least one application server (101) adapted to retrieve and update (column 5, lines 47-54 and column 6, lines 10-14, Cwenar) selected ones of the related data when ones of the applications use and generate

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application data having the key parameter field (see column 6, line 66 to column 7, line 3 and lines 24-25; abstract and FIG. 6 of Cwenar).

Cwenar, however, does not disclose that the related data are relevant to a hydrocarbon-producing portfolio. Armitage, on the other hand, discloses these limitations on (col. 4, lines 57-66; col. 5, lines 7-14 and col.7, lines 44-46, Armitage). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Cwenar, as taught by Armitage. The motivation of doing so would have been to use the system of Cwenar for industrial applications (col.4, 13-14, Armitage).

2. Regarding claim 2, Cwenar further discloses the system wherein the data repository is adapted to store all data generated by each of the applications (see col.8, lines 46-50, Cwenar).

3. Regarding claim 3, Cwenar further discloses the system wherein the data repository comprises a plurality of databases each adapted to store data from a respective one of the plurality of applications (see col.14, lines 11-16, Cwenar).

4. Regarding claims 4 and 24, Cwenar/Armitage combination discloses that the related data are relevant to a hydrocarbon-producing portfolio (see col. 4, lines 57-66; col. 5, lines 7-14 and col.7, lines 44-46, Armitage).

5. Regarding claim 5, Cwenar further discloses the system wherein the plurality of applications comprises at least one selected from the group of a database management

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application, a portfolio management application, and a portfolio forecast application (see col.7, lines 7-20, Cwenar).

6. Regarding claim 6, Cwenar further discloses at (Fig. 1 and Fig. 6) that the database management application comprises a front-end user interface (2, Fig. 1) operatively coupled to the data repository (4, Fig. 1) and adapted to generate at least some data having the key parameter field when ones of the plurality of users enter data into the front-end user interface (Fig. 6, Cwenar).

7. Regarding claim 7, Cwenar further discloses the system at (FIG. 1 of Cwenar) wherein the front-end user interface (2) comprises a plurality of different application modules each directed to specific ones of the plurality of users (elements 22, 24, 26 and 28, Cwenar).

8. Regarding claims 15 and 19-20, Cwenar discloses a management system (FIG. 4) for a hydrocarbon-producing portfolio, comprising:

- at least one server (100, Fig.4, Cwenar) adapted to serve a plurality of applications (column 6, line39) to respective users (126, 128, 130, 132, 134, 136, 138 and 140), each of the applications adapted to generate data corresponding to the respective user, at least some of the data generated by each application having a key parameter field (101, FIG. 4 and FIG. 6; col. 7, lines 21-27 and col. 13, lines 19-39, Cwenar) therein;
- a database management system (101, Fig.4, Cwenar) operatively coupled to the at least one server (100, Fig.4, Cwenar) and adapted to store at least some of the data

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- generated by each application and update any of the stored data having the key parameter field when ones of the applications modify any of the stored data having the key parameter field (see column 6, line 66 to column 7, line 3 and lines 24-25; abstract and FIG. 6 of Cwenar);
- the at least one server adapted to serve the updated data to any other ones of the applications when the other ones of the applications retrieves the updated data having the key parameter field (column 5, lines 50-52; column 6, line 66 to column 7, line 3 and lines 24-25). The at least one business process model application adapted to automatically update the modeled data when any ones of the selected ones of the stored data are updated by operation of any of the other applications (see col.5, lines 47-54 and col.6, lines 10-14, Cwenar).

Cwenar, however, does not disclose that the related data are relevant to a hydrocarbon-producing portfolio. Armitage, on the other hand, discloses these limitations on (col. 4, lines 57-66; col. 5, lines 7-14 and col.7, lines 44-46, Armitage). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Cwenar, as taught by Armitage. The motivation of doing so would have been to use the system of Cwenar for industrial applications (col.4, 13-14, Armitage).

9. Regarding claims 16-18 and 26-27, Cwenar/Armitage combination further discloses that the business process model comprises creating an optimized drilling schedule (col.11, lines 48-58, Armitage).

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10. Regarding claim 23, Cwenar further discloses that a parent application comprising a plurality of application modules, each of the application modules directed to at least one of the respective users (see col.7, lines 57-64, Cwenar).

11. Regarding claim 25, Cwenar further discloses that applying at least one business process model to selected ones of the stored data to generate modeled data; and automatically updating the modeled data when selected ones of the stored data are updated by operation of any one of the served applications (see col.5, lines 47-54 and col.6, lines 10-14, Cwenar)

Claims 8-10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cwenar (U. S. Patent no. 5,893,079) in view of Armitage (U. S. Patent no. 5,475,589) and further view of Dembo (U. S. Patent no. 5,148,365).

12. Regarding claim 8, Cwenar/Armitage combination discloses all claimed limitations as discussed above, except a resources optimization program adapted to use the related data retrieved from the data repository to generate an optimized allocation of resources based on at least one selected criterion. Dembo, however, discloses these limitations at (see FIG. 1 and column 1, lines 33-35 and 39-45, Dembo). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Cwenar/Armitage to include the claimed feature as taught by Dembo. The motivation of doing so would have been to use the system of Cwenar for optimally allocating available resources in portfolio management system (col.1, 4-7, Demo).

13. Regarding claim 9, Cwenar/Armitage/Dembo combination further discloses the system wherein the selected criterion comprises at least one selected from the group of developing most profitable assets first, achieving a selected net cash flow, achieving a selected earnings, achieving a selected level of production, satisfying obligations on time, and developing assets to achieve the greatest net cash flow in a selected amount of time for a selected amount of capital (see FIG. 5a-d and col.1, lines 43-49, Dembo).

14. Regarding claim 10, Cwenar/Armitage/Dembo combination further discloses the system wherein the applications server is adapted to automatically update selected ones of the related data when the resource optimization program generates optimized allocation of resources data (see col.8, lines 27-37, Dembo).

15. Regarding claim 11, Cwenar/Armitage/Dembo combination discloses the forecast application couple to predict future performance of assets (see col.8, line26 to col.9, line 4 and col. 10, lines 10-17, Dembo). Therefore, Cwenar/Armitage/Dembo combination discloses the portfolio forecast application is adapted to forecast future performance of assets based on the related data.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cwenar (U. S. Patent no. 5,893,079) in view of Armitage (U. S. Patent no. 5,475,589) and further view of O'Shaughnessy (U. S. Patent no. 6,484,151).



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16. Regarding claim 12, Cwenar/Armitage combination discloses all of the claimed limitation as discussed above, except “the automatically notification at least one user when related data relevant to the at least one user has been updated in the data repository”. O’Shaughnessy, however, discloses this limitations on (Summary of O’Shaughnessy). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Cwenar/Armitage to include the claimed feature as taught by O’Shaughnessy. The motivation of doing so would have been to transmit the updated information to the users immediately.

Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cwenar (U. S. Patent no. 5,893,079) in view of Armitage (U. S. Patent no. 5,475,589) and further view of Lu et al. (U. S. Patent no. 6,373,489).

17. Regarding claims 13-14, Cwenar/Armitage combination discloses all of the claimed limitation as discussed above, except the members of an asset development team having different functions related to the development and management of assets in the portfolio, each member responsible for providing particular related data corresponding thereto. Lu, however, discloses these limitations on (col. 1, lines 14-21, Lu). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Cwenar/Armitage to include the claimed feature as taught by Lu to provide various specialists having different functions related to the management of assets. The motivation of doing so would have been to enhance the management system.

Claim 28-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lu et al. (U. S. Patent no. 6,373,489) in view of Armitage (U. S. Patent no. 5,475,589).

18. Regarding claim 28, Lu discloses a method for managing a portfolio, comprising:

having a plurality of asset team members each using an application related to a function of the respective asset team member to generate data; the asset team members comprising geologists, geophysicists and petroleum engineers (see col. 1, lines 14-21, Lu); and automatically updating related data (see col. 25, lines 34-36, Lu).

Lu does not explicitly disclose that the asset team members comprising a geoscientist, a regulatory compliance administrator, a right-of-way administrator, a drilling engineer, a completion engineer, a finance analyst, a field operator, a sales and marketing representative, and a portfolio manager. But, it would have been obvious to include these people who are incorporative in this management system.

Lu, furthermore, does not disclose that the related data are relevant to a hydrocarbon-producing portfolio. Armitage, on the other hand, discloses these limitations on (col. 4, lines 57-66; col. 5, lines 7-14 and col.7, lines 44-46, Armitage). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Cwenar, as taught by Armitage. The motivation of doing so would have been to use the system of Cwenar for industrial applications (col. 4, 13-14, Armitage).

19. Regarding claim 29, Lu/Armitage combination discloses a seismic interpretation application (column 6, lines 33-45, Lu). And a petroleum land management application and a

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drilling engineering application, and a portfolio optimization application (see col. 4, lines 57-66 and col. 5, lines 7-14; Fig. 3 and Fig. 20, Armitage).

20. Regarding claims 30 and 35, Lu/Armitage combination further discloses that at least one business process model to select ones of the corresponding data to generate modeled data (see col. 19, lines 58-62, Lu).

21. Regarding claim 31, Lu/Armitage combination further discloses that at least one business process model comprises determining an optimized drilling schedule (see col. 7, lines 42-44 and col. 11, lines 48-58, Armitage).

22. Regarding claim 32, Lu/Armitage combination further discloses that at least one selected from product price forecasts and production predictions (see col. 6, lines 62-67, Armitage).

23. Regarding claim 33, Lu/Armitage combination further discloses that at least one selected from developing most profitable assets first, achieving a selected net cash flow, achieving a selected earnings, achieving a selected level of production, satisfying obligations on time, and developing assets to achieve the greatest net cash flow in a selected amount of time for a selected amount of capital (see col. 4, lines 1-14, Armitage).

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24. Regarding claim 34, Lu/Armitage combination further discloses that at least one business process model comprises forecasting hydrocarbon production (see Fig. 3 and col. 2, lines 61-67, Armitage).

25. Regarding claim 36, Lu/Armitage combination further discloses that at least one business process model comprises determining drilling costs associated with at least one prospectively drilled well (see col.3, lines 1-7, Armitage).

26. Regarding claim 37, Lu/Armitage combination further discloses that the hydrocarbon-producing portfolio comprises existing and prospective well locations, petroleum land management information related to the existing and an prospective well locations, capital equipment disposed in the existing wells, capital equipment proposed for existing and prospective wells, and estimated hydrocarbon reserves in reservoirs penetrated by the existing and prospective wells (see col.7, lines 42-44, Armitage).

27. Regarding claims 38-40, Lu/Armitage combination further discloses that the notifying at least one of the asset team members that corresponding data used by the one of the applications used by the at least one asset team member have been updated by operation of the other one of the applications used by at least one other asset team member (col. 6, lines 16-18 and col. 25, lines 34-37, Lu).

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*Response to Arguments*


Applicant's arguments with respect to claims 1-40 have been considered but are moot in view of the new ground(s) of rejection.


*Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh B Thai whose telephone number is 703-305-4883. The examiner can normally be reached on 8 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on 703-308-1436. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Hanh Thai   
Art Unit 2171  
October 27, 2003

  
UYEN LE  
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